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DEADLINE for copy for
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1 Feb. 1976

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COVER PHOTO

OSCAR Antenna system with full tracking capabilities on the roof of the Technical University at Budapest, Hungary.

The antennas were built by HA5WH.

EDITORIAL

The radio amateur space program, of which AMSAT is a significant part, will be a primary justification for keeping the Amateur Radio Services' VHF and UHF allocations when they are considered at the 1979 General World Administrative Radio Conference.

Satellite communication may be the most important facet of amateur radio to us. But, we are only a small fraction of the worldwide amateur population. It is up to all of us to spotlight the contributions that amateurs are making to satellite communications so that we become a larger and more important minority. This is especially necessary in countries where the use of VHF and UHF by amateurs is questioned.

The AMSAT Department of Publicity and Information exists to help you spread the word. Write to your local Area Coordinator for publicity information. That is what they are there for.

Joe Kasser
G3ZCZ

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FROM THE PRESIDENT'S DESK

AMSAT 1975 ANNUAL REPORT

BY PERRY I. KLEIN, K3JTE

During 1975, our seventh year of operation, AMSAT experienced a growth in membership from 1628 members and member societies (Oct. 31, 1974) to 2366 on October 1, 1975, a growth of 45% over this eleven month period. The current figure includes 508 life members, representing 21% of the total membership.

Highlights of Activity in 1975

AMSAT-OSCAR 6 observed its third birthday on October 15, outliving its original lifetime goal by 300%. The spacecraft continues to operate well, although it is occasionally necessary to reduce the operating schedule as the solar panels gradually degrade with time. There is no indication now that AMSAT-OSCAR 6 won't continue to operate far into the future, providing that our telecommand station operators are able to maintain their regular control of the spacecraft.

AMSAT-OSCAR 7 reached its first birthday on November 15 and continues to perform generally well. Like most satellites of comparable complexity, the spacecraft exhibits several anomalies such as occasional mysterious "mode-jumping," but none which seriously jeopardize the mission objectives.

During 1975, new AMSAT-OSCAR 6 telecommand stations came into operation at the University of Surrey, England, the Technical University of Budapest, Hungary, and in California.

In March, an international AMSAT experimenters conference was held, attended by representatives of AMSAT-Canada, AMSAT-Deutschland, Project Australis, AMSAT, and the San Bernardino Microwave Society. The purpose of this meeting was to define the AMSAT Phase III next-generation spacecraft. Phase III spacecraft are intended for operation in high-altitude, near-synchronous or synchronous-transfer orbits, where the communications time and range are much greater than heretofore possible with low orbiting satellites.

Current Activity

Progress is continuing on the design and breadboarding of portions of the Phase III spacecraft. Plans are for the spacecraft to carry two transponders, one using a frequency of 145.9 MHz for the uplink and 435.1 MHz for the downlink, the other using 435.1 MHz for the uplink and 145.9 MHz for the downlink. The two transponders would operate alternately according to a prearranged schedule, much as is done with the two transponders aboard AMSAT-OSCAR 7. The Phase III spacecraft will also contain a microprocessor (already developed), which will function as a command decoder, telemetry encoder (providing Morse code or teletype format, or any other code programmed into it), and provide experiment control functions as well.

The preferred orbit for the Phase III spacecraft is a highly elliptical, high inclination one having an apogee of about 24,000 st. miles (39,000 km) and a perigee of 900 st. miles (1450 km), with an inclination of 100°. Such as orbit gives better coverage of the higher latitudes than does a geostationary spacecraft, and can be achieved by using an onboard apogee kick motor to take the spacecraft from a 900-mile (1450 km) ITOS/NOAA circular orbit into the desired elliptical one.

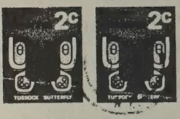
AMSAT-Deutschland in Marburg, Germany is responsible for the overall Phase III spacecraft design and breadboarding, while AMSAT-Canada in Ottawa and Montreal is responsible for prototype and flight spacecraft fabrication. Project Australis has agreed to assist in the development of required ground system equipment, and AMSAT-Washington will arrange testing and launch preparations. Total cost of the project is estimated at between $100,000 and $120,000.

In addition to spacecraft development, portable AMSAT satellite terminal equipment is being packaged for use in demonstrations and deployment to disaster areas in the event of emergencies. The terminals are battery operated, and capable of single-sideband operation with all transponders in AMSAT-OSCAR 6 and 7 as well as the Phase III spacecraft to follow.

Future Projects

In addition to AMSAT Phase III, AMSAT affiliate organizations are involved in other satellite hardware projects. Members of the Japan AMSAT Association are developing a four-watt, two-meter-to-70-cm linear transponder which employs state-of-the-art RF power MOSFET techniques. AMSAT-Canada members are repackaging the AMSAT-OSCAR 6 and 7 two-to-ten meter transponder to use thick-film hybrid printed circuit techniques instead of hand-wiring. In the United States, a multichannel analog telemetry system is under development, and in England, AMSAT-UK members are discussing a possible fifteen-to-ten meter transponder project.

"LETTERS AND COMMENTS"



Dear Perry,

I have just received from Steve, G2BVN, the special OSCAR Achievement Certificate you so kindly sent me and feel I must at last write to you, which I have been intending to do for a very long time, and thank you and all the AMSAT Officers for this, which will be framed and hung up in my room - at the same time I must offer all of you my most sincere congratulations for all your achievements since you took over from the original OSCAR Group.

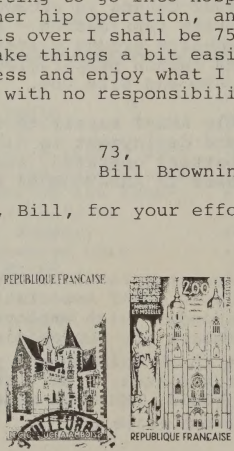
I am really sorry that I have not been able to participate in Oscar 6 & 7, but just about when I finished clearing up all the details of Oscar 5, my spinal osteo-arthritis took over complete control, and I have hardly been out of the house since. Have had to have replacement artificial hip joints fitted, and at present the 5th spinal vertebrae up my spine is now growing on to the lower 5, which are now a solid lump, so any bending is impossible, my neck only turns about 25° either way, and I cannot raise my arms or hands above my shoulders, so you can guess why I don't operate much, but I do keep up regular skeds with many old friends.

I did however get going with predictions when my friend, G8LT, who calls to see me about twice a week, wanted to have an RTTY QSO with a U.S. Station via OSCAR, and I worked out all the times and beam headings for him and W2LFL, and they did manage to get a 20 minute QSO, which was the first U.S./U.K. RTTY OSCAR contact, so the brain still works slightly.

Am waiting to go into hospital again for a further hip operation, and by the time that is over I shall be 75 and going to take things a bit easier every year, do less and enjoy what I can and want to do with no responsibility to anyone.

73,
Bill Browning, G2AOX

(Thank you, Bill, for your efforts -- Joe)



Gentlemen:

Congratulations on the two OSCAR satellites presently in operation! I am a Jesuit priest stationed here in Lima, Peru, with the call OA4SS (stateside W9IBT). I receive the monthly data sheet for OSCAR orbits from HR Report, and enjoy listening to them, especially the OSCAR 7 evening orbits. Unfortunately I work at the university until about 2230 local (0330 UCT) during the week, so am only able to listen to the evening orbits on weekends. I do work here in the same building where my station is located during the day, and hope to someday calculate with more accuracy my OSCAR coverage area in order to be able to tell which of the morning passes will fall within my hearing range. Instead of a "coffee" break I could take an "OSCAR LISTENING break" - hi!

I would like to offer the following idea for consideration when you begin to plan more in detail the phase three programs. I work with Peruvian Civil Defense here in Lima, and am the link between the international earthquake center at Boulder, Colorado, and Lima whenever we cannot rely on teletype and telephone communications. However, at times we do not have good conditions on either 15 or 20 meters, and it is of the utmost importance that we locate as soon as possible the exact epicenter to be able to direct rescue operations. Keeping in mind that other countries of the South Pacific are located on the ring of fire and thus subject to earthquakes, would it be possible to include some kind of warning facility as part of the OSCAR program? If some station or stations stateside, preferably in Boulder, Colo. or the the National Red Cross center, couls have a receiver monitoring a given OSCAR frequency, with squelch, 24 hours a day, we could perhaps key an alarm by using some type of encoder on that frequency via OSCAR. Also, OSCAR operation would not require the use of generators, and this is where our emergency systems usually fall down. Generators are stored away and not "ready to go." A ten watt transceiver on OSCAR could be powered for quite some time by any car battery. I am inclined to think that this kind of alert system would be rather difficult to achieve with the present OSCAR satellites, due to dopler shift and weak signals. But, with the phase three satellites that might be another matter.

Certainly one of the strongest arguments in favor of amateur radio in countries such as Peru is its service in times of emergencies. We must keep in mind, with the upcoming international conference, that in most underdeveloped countries amateur radio operators are not usually technically inclined, and often times have a reputation of being rich people who use amateur radio to get around paying phone bills for long distance calls. This kind of image does not make governments favorably inclined toward the allocation of more space to amateur services. And some of them may not view kindly the use of amateur satellites since they may fear more "competition" to commercial communications and also since they may not be equiped to monitor our operations on that band. This would seem to be the case in a number of countries down this way. Were some definite plan for emergency alerts incorporated into the phase three programs, it might make a lot of difference. Here in Peru, for example, the freq. of 7415 USB is the national alert freq. for commercial services, and 7100 LSB is the amateur alert frequency. An OSCAR connection would complete the international Civil Defense link nicely, come phase three time.

Keep up the good work on the OSCAR series. If I can be of service, I'm always glad to help out around my work schedule here. However, I will be travelling during the months of Jan.-Feb., and at times during the coming year I will be out of town for a week or two at a time since I must visit our religious communities all over Peru. Hope to work some of you on the air one of these Saturdays.

Sincerely,

Fr. Ed Schmidt, SJ
OA4SS - W9IBT

Gentlemen:

This is to report that I have finally gotten on the air at this location and have worked several stations.

I am using a KWM-2A with a 62S-1 into an 8 el. Hy-Gain yagi fixed at abt. 35 deg. el. The 10 meter rec. is a 75S-3B with the station 4 el. on 10 mtrs. via the TH6-DX yagi. The two meter antenna is mounted outside the shack and I have to run outside and manually turn it. This makes things a bit difficult, but that is the best that can be done here at this time. I have only about 8 mos. remaining here and don't wish to import any more equipment. There are no plans to go mode B due to the same reasons.

Unfortunately, when I leave the whole thing will close down. I am the only ham, and the chances of me being relieved by another ham are very remote. So, I will do the best I can for the time remaining.

73,
Jeep, K3HVG/HR6SWA

The Welland Canal 1824 Le canal Welland
William Hamilton Merritt
Canada 8

Hi, Joe!

It's terribly hard to get news in from the guys on what they are doing -- but easy to get what they "intend" doing -- that they may never get around to it is another story!

One of the more active NZ stations has been Mac, ZL1TAA, on Waiheki Island, Hauraki Gulf Auckland. Mac started out with FM and recently changed to SSB with purchase of a MULTI 2000. Regretably he has been in hospital in recent weeks suffering from a heart and nervous disorder. For some months he has been rebroadcasting Predictions on VHF Repeater into the central North Island area, with hopes of building up activity thru OSCAR. Ross, ZL1WN has been a comparitive newcomer to OSCAR, but building up a healthy list of contacts. ZL1TNS has re-appeared this time with SSB from what could well be another of those Commercial Rigs appearing on the NZ Market before our currency devaluation!

Into the Second District we have Bill Hamer, ZL2CD, active on CS, and some trials with QRP SSB., mainly thru OSCAR 6. Bill is a past President of NZART and at present a member of Council. He was first Coordiantor for Project OSCAR in this country, having been active on OSCAR's 1,2,3, and 6/7.

Harry, ZL2TFJ, has been quite active on 6 & 7 with SSB and is one of the handful of NZ amateurs who have worked thru OSCAR 7 Mode B. Trev, ZL2HP, was a consistent CW operator thru OSCAR 6 until the second quarter of this year.

In the South Island most of the "high density" operation has come from Dunedin area, although Russ, ZL4JW, somewhat further north, had been very active with OSCAR 6. ZL4IS, ZL4PG, ZL4TAR must lead their area activity, and it was mainly thru the efforts of Bernie, ZL4IS, that Fiji came up on OSCAR earlier this year.

(continued on page 6)

(continued from page 5)

On Mode B I have only recorded the following NZ stations. ZL3AR-A.M., ZL2TFJ-SSB, and ZL4IS-SSB.

The "ZL-OSCAR-NET" has met more than 370 times since OSCAR 6 flew, with ZL2CD being a consistent participant, often making the difference between no Net at all! The Australian Group helped us keep the Net going with very accurate Equatorial Crossings and local predictions. At present we are rather shakely trying to stand on our own feet!

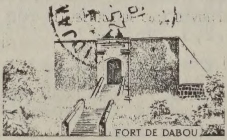
The recent "overtake" of 6 by 7 did not appear to be as rewarding as that observed earlier this year, with very few contacts involving both Craft.

The majority of stations here prefer OSCAR 6, although for those having the equipment Mode B of 7 would prove superior. Hopefully that aspect may induce more homebrewing, a feature almost of the past nowadays!

No one has yet achieved consistent readout of the teletype telemetry, although telemetry does not enjoy any great following in NZ, no doubt due to the large number of (possible) observers who lack the appropriate skills, or the desire to improve them.

OSCAR 6 initially had quite a following, but they very quickly fell by the way-side, with many of them threatening all manner of things "when 7 goes up", but of course it never came about, which limits the field for active operators, but gives a clear channel for any DX that may yet show up! So, Joe, that's about the picture from NZ -- a country which once held top place on the activity percentage charts for OSCAR 6! I am sorry it is not a rosy picture...today.

Very 73,
Bruce, ZL1WB



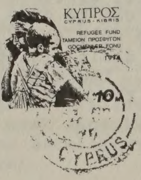
Dear Joe:

There's not too much to the story of the QSO with Pat except we have been at it for about four months with very little encouragement. I heard him a few times and he reported my signals (via W3UN or VE5XU) on several occasions but we were never quite able to get it all together. Then on July 28 at 1736 just prior to my AOS of A-O-7 on orbit 3195-A I heard Pat calling me with a very readable signal and repeating a report which I took to be 559. There was considerable QSB and flutter but all in all his copy was very decent considering the circumstances. At this point I started calling him on 29496 Kcs continuously repeating his report and taking short pauses for possible answers to my calls. Twice during those 3 minutes I heard him respond but by then his signals were very fluttery.

As a suggestion for those interested in trying for DX contacts thru the satellites I have one idea that may have merit. I watch for "tropos" or "ducting" effects which are of course the ideal situation for covering the distance between the limits of my AOS and those of the station being looked for. I find the quickest and easiest way to be aware of a "tropo" situation is to watch the VHF-UHF channels on TV. When these phenomenae show up they are very quickly obvious on the TV channels and this saves a lot of long dull periods of checking the VHF bands for these "freak" conditions. For instance, prior to the contact with Pat I had noticed DX TV stations coming thru in our local area for very brief periods. This was an immediate alert to me that it would be an excellent time to give special attention to the try for G3IOR. My theory proved right and he was at his best.

I did receive my OSCAR-WAS #5 this week from ARRL so now my chief interest will be back to the Educational Program with special attention to the medical phase of this with K7RGE and W7VEW. I already have at hand a new EKG package from K7RGE and we are preparing to try it again late this month if possible. This time we hope to be able to void the degradation of the material due to the doppler effect that we experienced on the first trial last Spring.

I live in a Mobilehome Park and big antenna arrays are rather frowned upon. I use a 7 El Cushcraft with Az-El and its about 20 feet high. When I worked Pat the El was not working and it was stuck at an El of about 25 degs. high. The rig then was Collins S line (75S-3b, 32S-3, 62S-1). In the past week I have swapped the S line for a solid state set-up and now am using a TS-520 Exciter, TV-502 transverter and a solid state 130 Watt output Amp. Signal reports about the same. Oh yes -- for receiving Pat I used a 20 dB Pre-amp ahead of the 75S-3B and a TA-33 yagi up about 35 feet.



Sincerely, 73,

Bud Schultz, W6CG

Sirs,

I would like to see more advanced technical articles in the Newsletter. There must be many like myself who are new students of electronic design but due to one reason or another (geographic isolation) have no contact with the space industry.

Anyway, it's still great.

73,
Gordon Hardman
ZE7DC/ZS5

(What do other readers think; please see survey on last page... Ed.)

FINLAND 0,70 SUOMI FINLAND 0,70 SUOMI 70 FØROYAR

Dear Editor,

SUBJECT: Another mode of communications via AO7 mode B

HISTORY... About 4 or 5 years ago ex VE4MA now VE6JX and I started running tests with our recently aquired desk fax machines on our 120 mile tropo path on 432 MHz. At first we used the machines "as is" meaning of course that we used the amplitude modulated tone to convey the information.

This was with its shortcomings however over a tropopath with the normal variation in signal levels. This led us to the development of different FSK systems to carry the picture information. We are using the same standards as commercial FAX and slow scan TV. A short time later VE4AS also joined us and we have been pleased with the results.

Shortly after AO7 was up VE4AS and I ran some tests via the satellite and were very much surprised to find that another ham in Wisconsin was getting our pictures as well.

Enclosed you will find some pictures I have received from VE6JX and VE4AS from myself.

We have been running these tests on those Northerly orbits where the "bird" has the minimum of activity.

73,
Wally Lamb, W0PHD

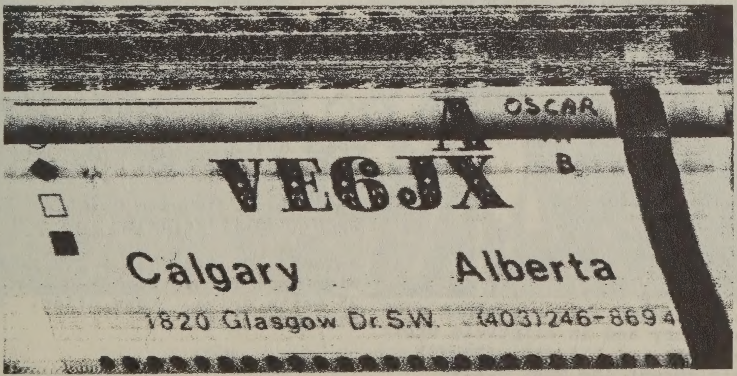
Dear Joe,

Just a few notes about topics for the Newsletter. I found the microprocessor discussions at Reston quite interesting. Several of us in Kokomo are thinking about getting one running. How about an article surveying the available processors with emphasis on AMSAT type applications. A listing could appear in the Newsletter with AMSAT type software, people are willing to share. Direct transfer of software can be person to person.

Along this line a collection of discriptions of tracking data programs for calculators could also be of great help. It would be good to have an interim report from Canada & Australia as to the type of microprocessors they are using for Phase III developments. That would allow AMSAT "troops" to be compatible when the units are operational for telemetry, etc. (I saw 8008 & 8080 in the Newsletter later.)

73,
K. O. Learner
K9PVW

(The reference orbit printouts were done by an 8080 microprocessor. I'll print what is available providing space permits. Ed.)


OSCAR
A
B
VE6JX
Calgary Alberta
1820 Glasgow Dr.S.W. (403)246-8694

Dear Joe,

Our local fair is now over and we are pleased with the response.

There is no doubt that the operating side of Amateur radio has little attraction for the uninterested spectator. In future we will rely more on active demonstrations such as a slow scan TV link, and construction of a unit. The RTTY demo. of the telemetry was quite an attraction but operating through the satellite was a flop. If this was to be done again it would have to be by prearranged demo. only.

Unfortunately for various reasons several displays were not available. The model was finished after the fair was over. The automatic slide projector was not forthcoming; the doppler shift demo. was not ready. Finally not enough local support to have the link system going early enough. Some non OSCAR operators got into the act and did not understand the operation. Little wonder I turned grey. All I got was hard work and a new son for my troubles.

For all that the effort was worth while. We built up some good display material and will be back again promoting amateur radio. Most of those already interested in electronics gained something from the show and we obtained several new members.

Worthwhile: RTTY telemetry demo
Pre-recorded tape, Static display of Home Brewed Gear, Amateur sitting down building something, the simpler the better.

Leave out: Operating - Particularly with expensive looking gear.
Any more than two posters.
(Words longer than 2 syllables)

Next time the accent will be on the use of simple equipment i.e. direct conversion receiver and even only cw for transmit. Home construction will be a big feature and OSCAR will be pre-recorded stuff. It does not occur often enough and is a little unpredictable for live use.

I'll send some photos when they are ready.

Thank you for your help.

73's,
Terry Carrell, ZL3QL

P.S.
There is some concern that we will become the forgotten land with the next OSCAR with high speed telemetry and an elipticle orbit favouring the north. A bit early to get upset but don't forget the most active country!

HELP WANTED

Can you help AMSAT in the following areas? If so please write to AMSAT in care of the call sign listed.

(1) Produce 50 watt 432 MHz linear (SSB) amplifiers. via WA3LND.

(2) Wire up kits. via WA3LND.

(3) Build or obtain 103A Compatible Modems. via WA3LND.

(4) Produce a source of 12 V dc fans. via WA3LND.

(5) Act as area coordinator if none exists in your area. via G3ZCZ.

(6) Modify sky phone fm rigs for use as 432 MHz CW loaner equipment via W3HUC.

(7) Construct 28 V 7A power supplies for skyphones -- via W3HUC.

MODE B USERS NOTE

Recent telemetry data indicates that excessive ERP from many users has caused the OSCAR 7 batteries to discharge excessively. This practice will eventually damage the batteries. In addition, communication for low power stations is made much more difficult.

Please, make certain that your ERP does not exceed 100 watts.

CLASSIFIED

These messages are published as a service to members at no cost on a space available basis. Deadline for the next issue is 1 February 1976.

Ameco Tx-62 as used on OSCAR $75.00
W9JUV (312)724-8816.

M-Tech 100 watt Class C 2 Meter Amp with factory mod for CW operation, 25 watts drive. make offer. W4ART (703)525-6155.

ITALIAN AMSAT PARTICIPATES IN "LET'S SAVE VENICE"

The "International Let's Save Venice Exhibition" held in Trento, Italy, from 14th to 21st of September was the first practical activity of AMSAT ITALIA. The exhibition, whose president was the Princess Elettra Marconi, was sponsored by such persons as, H.M. King Hussein of Jordan (JY1), Senatore Spagnolli, President of the Senate, Conte Premoli, Senatore del Senato, Senatore Orlando, Minister of Posts and Telecommunications.

HF, VHF, RTTY, SSTV equipment and a complete mobile OSCAR station were exhibited in the Piazza Dante in Trento. Dr. Giorgio Giro, I3BMV, gave an address on the subject of "Amateur Radio Telecommunications via satellites" in the main hall of the Sala Dei Congressi of the Region of Trento. The exhibition was visited by thousands of persons, who saw the special exhibition station IV3VLS operating through the AMSAT-OSCAR 7 spacecraft.

The Mayors of Trento and Venice commissioned a special message to be sent to all the radio amateurs in the world via the satellite. The following is the text of the prerecorded message that was repetitively transmitted via the AMSAT-OSCAR 7 satellite:

"Let's save Venice. Let's save Venice. Let's save Venice. This is jolly station IV3VLS calling for the 'Let's save Venice OSCAR award', available to all worldwide radio amateurs. Italian AMSAT and the Young Ladies Italian Radio Club invite all hams to cooperate with the salvation of Venice. Venice must not die."

AMSAT ITALIA was formed in May 1975 and the following were recently elected to office.

President......................	Dr. Giorgio Giro, I3BMV
Executive Vice President........	Proffessor Marciano Righini, I4MY
Technical Vice President........	Pietro Morroni, I5TDJ
Secretary/Treasurer............	Fulvio Colombo, I3RSY

MANIFESTAZIONE RADIANTISTICA MONDIALE
"SALVIAMO VENEZIA - LET'S SAVE VENICE"
TRENTO - 14-21 SETTEMBRE 1975

I3BMV Speaking about AMSAT-OSCAR

SSB ON MODE B, USING MODIFIED FM EQUIPMENT

BY RON STEVENSON W2BXA

One simple way to generate a relatively small amount of 432 MHz RF SSB and CW is to high level mix in the final stage of a surplus commercial Motorola, RCA, General Electric etc. 460 MHz transmitter strip which is usually rated at 15 watts minimum output.

A very cooperative unit is the RCA CMU-15 which uses a 5894 PA tube. About 18 watts is obtained at 460 MHz.

To convert this type of gear, proceed as follows:

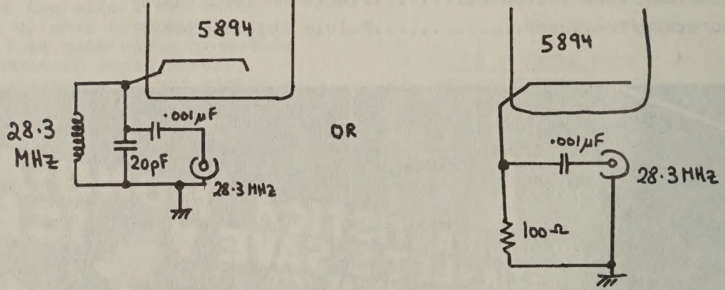
1) Secure a copy of the manufacturer's instruction manual for tuning procedure and general information.

2) Purchase a 12.79028 MHz crystal (nooven) x 36 = 460.450 MHz which is centered at original design frequency.

3) Build B+ power supply 330 volts at 400 mA capability including an 0A2+ B2 conventional regulated portion for the oscillator.

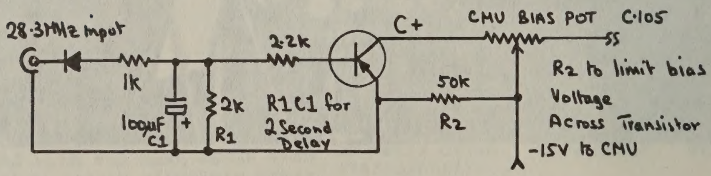
4) Remove the tubes from the modulator-limiter circuit.

5) After tuning the strip to 460 MHz, mixing with the selected 28.3 MHz from HF transmitter requires up to about 15 watts and may be accomplished in either the 5894 PA grid or cathode circuit. The cathode mix is suggested as follows:



6) When 28.3 MHz is applied to cathode, retune the final tank condenser to slightly more capacity to resonate at 432 MHz. No modification is necessary.

7) Obviously under key up condition or with no SSB modulation, the 5894 PA is out of resonance since the plate tank is at 432 MHz and the excitation to the tabe is 460 MHz. To minimize damage and for cooler operation the following circuit is used to bias the last three stages to cutoff under key up condition.



The output at 432 MHz is about 10 watts and is chirp free with the xtal B+ regulation. On Oscar 7B this exciter drives a 4CX250B amplifier easily and has performed satisfactorily since its "conversion".

AMSAT NETS

The following AMSAT Nets meet regularly to disseminate information to newcomers and to keep regular satellite users in communication with one another.

USA-East Coast Net	Tuesdays	7:00PM EST	3850kHz LSB	Net Control W3ZM or W3UN
USA-Mid States Net	Tuesdays	7:00PM CST	3850kHz LSB	Net Control W0CY
USA-West Coast Net	Tuesdays	8:00PM PST	3850kHz LSB	Net Control W6CG
JA-Net	Mondays	1300 Z	3560kHz LSB	Net Control JA1ANG
ZL-Net	Mon,Th,Sat	1900 Local	3850kHz LSB	Net Control ZL1WB
Asia-Pacific Net	Sundays	1100 Z	14,280kHz USB	Net Control JA1ANG
Western Europe Net	Sundays	1000 Local	3780kHz LSB	Net Control G3RWL
	Sundays	1100 Local	7060kHz LSB	Net Control G3RWL
International Net	Sundays	1800 Z	14,280kHz USB	Net Control W3ZM or W3UN
	Sundays	1900 Z	21,280kHz USB	Net Control W3ZM or W3UN
Africa-Europe Net	Sundays	1700 Z	14,280kHz USB	Net Control G3IOR
	Saturdays	1000 Z	14,280kHz USB	Net Control G3IOR

The following vhf frequencies are also in Use:

London, England	144.28MHz USB	Net Control G8CSI	Sundays	1930 Local
Washington, D.C.	146.25-85MHz FM	WR3ABU	Daily	--
Dayton, Ohio	146.34-94MHz FM	Net Control K5BWZ/8	Thursdays	2100 EST

Bulletins of general interest to those interested in amateur satellites are transmitted regularly on OSCAR-6 reference orbits, at approximately 10 minutes after Ascending Node. THese bulletins are transmitted on a Downlink Frequency of approximately 29,490 KHz and can be received over most of Eastern North America.

Readers are requested to inform AMSAT about any corrections or changes to the above net schedules.

Educational bulletins are transmitted regularly by AMSAT Educational Bulletin Stations in North American on even numbered weekdays of the year via the AMSAT-OSCAR 6 two-to-ten meter transponder. These bulletins, addressed to schools, can be heard on 29.50 MHz during morning passes having equatorial crossings between 250 and 305 degrees W. Longitude.

AMSAT-OSCAR 6 AND 7 ORBITAL DATA CALENDAR

In cooperation with AMSAT, for the second year Skip Reymann, W6PAJ, has published an AMSAT-OSCAR orbital data calendar containing all orbits for 1976 for both AMSAT-OSCAR 6 and AMSAT-OSCAR 7. Designed so that it may be hung on the wall, the calendar includes information on the operating schedules and frequencies for both spacecraft, and also the telemetry decoding equations. Also included is step-by-step information on how to determine times of passage of the two satellites.

The orbital data calendar is available postpaid for $3.00 U.S. funds or 20 IRC's. Overseas orders will be shipped via airmail. Orders and payment should be made to:

Skip Reymann, W6PAJ
P. O. Box 374
San Dimas, California 91773 U.S.A.

All excess receipts over costs benefit AMSAT.

If you do not live in the USA, you may obtain information about AMSAT from the following.

AMSAT Affiliate Organizations

AMSAT-Mexico c/o D. Liberman, XE1TU, Bosque De Sayula No 22
Mexico IO DF. Mexico

Japan AMSAT Assoc. c/o H. Yoneda, JA1ANG, 15-1305 Shimouma 2-Chome-26
Setagaya-ku, Tokyo 154, Japan

WIA-Project Australis c/o D. Hull, VK3ZDH, 3 Oliphant Court, Mulgrave,
Victoria, 3170 Australia

AMSAT-Nederland c/o W. Dekker, PA0WLB, P. O. Box 87, Norowijk, 2460,
The Netherlands

AMSAT-Deutchland c/o A. Schoening, DC7AS, Maxmiliankorso 52,
1 Berlin 28, West Germany

AMSAT-UK c/o P. Gowen, G3IOR, 17 Heath Crescent, Hellesdon,
Norwich, NOR 58N, England

AMSAT-Italia c/o G. Giro, I3BMV, P. O. Box 372, 34100 Trieste,
Italy

AMSAT-Canada c/o E. Welling, VE3HD, 155 Catalina Drive, Scarborough,
Ontario, M13183, Canada

Overseas Country Coordinators

Eric Roy, TI2NA, Box 661, San Jose, Costa Rica.

Paul Wyse, OA8V, Casilla 2492, Lima 100, Peru, S. A.

Edmilson R.de O, PY7CPK, Caixa Postal 27, 58100 Campina Grande PB
Brazil, South America.

V. Subramanian, VU2UV, 159/1 Silver Oak Avenue, Hq. Trg. Command IAF,
Hebbal-Bangalore, 560006, India

Ted Vogel, HB9OP, 186 Route de la Capite, 1222 La Capite, Geneva
Switzerland

Bruce Rowlings, ZL1WB, Mason Street, Onerami, Whangarei, Northland,
New Zealand.

Francon Gerard, F6BEG, 17 Rue du Chauffour, 15130 Arpajon-Sur-Cere,
France

Hugh Rylands, TU2EF, Douglas Aircraft Representative,AIR AFRIC-Direction-
Technique, Boite Postale 21.017, Abidjan, Ivory Coast, Africa

Billy Lane, VQ9L, RCA, Box 197, APO, New York, N. Y. 09030
(Seychelle Islands).

If you are an active satellite user and there is no AMSAT Coordinator or Affiliate organization in your state or country, why not volunteer for the task. Write G3ZCZ at AMSAT, for details.

AMSAT-OSCAR QSL BUREAU

Dennis Grindrod, WA1EHF, 564 Stillman Street, Bridgeport, Conn. 06608 is serving as AMSAT QSL Manager for OSCAR cards in the United States. U.S. users should send several #10 (business-size) SASE's, which will be filled with incoming QSL cards and mailed when full. Outgoing DX OSCAR QSL's will be forwarded at a rate of 6¢ per card or 20 cards for $1.00. Domestic QSL's (U.S., Canada and Mexico) can be sent in bulk. These will be sorted and placed in the SASE's.

AMSAT AREA COORDINATORS (USA)

For local help, information, and any other material relating to the AMSAT-OSCAR program, contact your local area representative listed below. Telephone numbers given are home phones.

Dennis Grindrod, WA1EHF, 564 Stillman Street, Bridgeport, Conn. 06604
George Simmons, WA1POJ, 46 Broad Street, Warren, R. I. 02885 (401)245-4075
Bob Crumrine, WB2DNN, 24 Parkmere Road, Rochester, N. Y. 14617 (716)342-0479
Fred Merry, W2GN, 35 Highland Drive, East Greenbush, N. Y. 12061 (518)477-4990
Ed Bizub, WA2CBB, 1579 Franklin Street, Clark, N. J. 07066
Kaz Deskur, K2ZRO, P. O. Box 11, Endicott, N. Y. 13760 (607)748-8028
Glenn Kurzenknabe, K3SWZ, 403 Centerview Ave., New Cumberland, Pa. 17070 (717)938-3655
Steve Cruse, K3WHC, 1018 No. George ST., York, Pa. 17404 (717)848-1302
Ted Mathewson, W4FJ, 1525 Sunset Lane, Richmond, VA. 23221 (703)355-5118
Walter Dixon, W4DWN, 820 N.E. 123rd St., Miami, Fla. 33161 (305)895-0398
Jim Stewart, WA4MVI, Rt. 8 Box 92, Hendersonville, N.C. 28739 (704)684-2090
William C. Latimer, WA400H, Box 994, Marietta, Ga., 30061 (404)926-4053
Mark Calderazzo, WB4UOK, 6257 Luzon Drive, Orlando, Fla. 32809 (305)855-2602
William Appleby, WB5DCY, 28 Linda Lane, Long Beach, Miss. 39560 (601)863-6791
Steve Hay, K5RZU,11010 Strait Lane, Dallas, Texas 75229 (214)361-1860
Bud Schultz, W6CG, 3050 Ball Road, #154, Anaheim, Calif. 92804 (714)826-4850
John Barboe, K7VNU, Rt. 4, Box 1157, Sequim, Washington 98382 (206)683-4730
David Middelton, W7ZC, Box 303, Springdale, Utah 84767 (801)772-3360
Richard Cotton, W8DX, 5526 Buckingham Road, Detroit, Mich. 48224 (313)885-9310
Tom Eavenson, K5BWZ/8, 7261 Stonehurst Dr., Dayton, Ohio 45424 (513)236-9623
Joe Schroeder, W9JUV, Box 406, Glenview, Ill. 60025 (312)724-8816
"K.O."Learner, K9PVW, RR5, Box 307, Kokomo, Ind. 46901 (317)453-2947
Jim McKim, W0CY, 1404 South 10th, Salina, Kansas 67401 (913)827-2927
Katashi Nose, KH6IJ, 4207 Huanui Street, Honolulu, Hawaii 96816 (808)734-1463
Mike Enciso, KP4DPN, 168 San Jorge, #11, Santurce, Puerto Rico 00911 (809)723-3554
Doyle D. Kernes, WB0IUT, 7040 Seward St., Lincoln, Nebraska, 68507 (402)464-6867

NORTH JERSEY DX ASSOCIATION

ACHIEVEMENT AWARD

The NJDXA Achievement Award is available to any licensed DX station working five members (Regular or Associate) of the association via amateur satellite. There is no fee for this certificate, and QSL cards are not required. DX stations applying for the award should send a list of the members worked to the NJDXA Awards Chairman, Hayden Evans, K2BZT, 11 Holly Tree Lane, Little Silver, NJ 07739. Include call sign, date, time, and satellite used. NJDXA will verify the contacts by inquiry among its members involved. A list of all members and associate members is available from K2BZT. Members and associate members who are or have been active on the satellites include W2BXA, K2BZT, the late W2DXX/K2KL, W2GZZ, W2JB, W2LV, W20EH, K20JD/FP8AA, K2QBW (on or after May 3, 1975), W2TP, W2YY and W3CWG (ex-W2RGV). The certificate itself is 8 1/2" x 11" and very much resembles the well-known red NJDXA ASL cards, which are used by all members. The North Jersey DX Association, founded in 1957, is perhaps best known for its work in handling the ARRL Second District QSL Bureau. Its membership includes many who are prominent in the DX phase of amateur radio.

K2QBW

NON-WATERPROOF AMSAT BUMPER STICKERS

If you received a new AMSAT bumper sticker you may have noticed by now that the color has faded. Our printer has apologized and supplied us with a waterproof style. If you need a replacement send a self-addressed envelope to Bumper Stickers, AMSAT, P. O. Box 27, Washington, D. C. 20014.

MINUTES OF THE BOARD OF DIRECTORS'MEETING

SEPTEMBER 14, 1975

The Board was called to order at 2:10 P.M. at Sheraton Inn, International Conference Center, Reston, Va. The following were in attendance.

P. Klein, K3JTE
T. Clark, WA3LND
W. Tynan, W3KMV
J. King, W3GEY
W. Dunkerley, WA2INB
L. Kayser, VE3QB
C. Dorian, W3JPT

The Audit Committee Report was accepted. The issue of liability insurance was discussed. It was agreed to solicit the views and advice from our financial advisor, R. Soifer,K2QBW.

It was reported that the ASSC at its meeting of September 11, 1975, approved the budget submitted by AMSAT.

The ASSC established a funding priority of:

1st - OSCAR 6 and 7 operations and replacement modules for continuation of the educational program.

2nd - Phase III Oscar program.

The ASSC recommended that the entire funding of AMSAT be obtained from the ARRL Foundation. That is: the administration costs obtained in the past from the ARRL Foundation. The ASSC directed that P. Klein and W. Dunkerley form a committee of two to determine how to reduce the time spent by the President in administrative matters and that a report be submitted in 30 days. They requested an outline of material to be used in the development of a prospectus on the Phase III program.

The following individuals were appointed to the designated positions effective October 1, 1975:

Secretary: R. Carpenter, W3OTC

Treasurer: R. Rosner, WB4UOX

Asst. Treasurer: W. Hook, W3QBC

Vice-President Engineering: J. King, W3GEY

The position of Vice President Operations and Executive Vice President are to be reviewed, potential candidates solicited, and further discussed at the next Board Meeting.

The Board agreed to offer P. Klein as President the sum of $15,000 per annum for a 30 hour week. In addition he would be entitled to two weeks' paid vacation per annum and the payment by AMSAT of the employer's FICA charge. This is to be effective October 1, 1975. P. Klein accepted the offer and Presidency.

The Board resolved to make the necessary signature authorizations required by the Banking institutions:

State National Banks accounts

Columbia Federal Savings & Loan

Dreyfus Liquid Assets Fund

The Board agreed to an advance of $1,000 to pay for bills related to the development of portable terminals. Funds in support of this program have been promised from the Northern California DX Foundation, Inc. Additionally, AMSAT general funds in the amount of $400 was authorized in the event that sufficient funds are not raised for the construction of two terminals.

The meeting adjourned at 4:45 P.M.

C. Dorian
W3JPT

MINUTES OF THE BOARD OF DIRECTORS' MEETING

1 OCTOBER, 1975

The meeting was called to order by President Klein at 2015, 1 October, 1975, at NASA, Goddard Space Flight Center. The following members of the Board were present:

T. Clark, WA3LND/W0IUF
C. Dorian, W3JPT
W. Dunkerley, WA2INB(by phone)
J. King, W3GEY
P. Klein, K3JTE
W. Tynan, W3KMV

Others present were:

R. Carpenter, W3OTC, Secretary
Dr. Jim Maxwell, K6AQ, Proj. OSCAR Assoc.
R. Daniels, WA4DGU
J. Kasser, G3ZCZ, Publicity Director
W. Webster, WB2TNC, Alternate Director

Dr. Maxwell presented a status report about Project OSCAR.

There was a short discussion of proposals to change the AMSAT by-laws to redefine the duties of the Officers. On the motion of Tynan, the proposals were tabled for the present.

Further officers were elected as follows:

Executive VP	Thomas A. Clark, WA3LND/W0IUF
Operations VP	Richard Zwirko, K1HTV
Asst. Secretary	Gary Tater, W3HUC
Communication Manager	Ed Clammer, W3UN

On a motion by Dr. Clark, it was voted not to establish an Executive Committee.

There was a discussion of the offer by ARRL Headquarters to perform certain activities in behalf of AMSAT. This offer was accepted to the following extent:

1) ARRL will provide technical information to all amateurs concerning satellite communications.

2) ARRL will disseminate public information, create exhibits, etc.

3) ARRL and AMSAT will jointly prepare reports for government agencies, etc.

Jan King reported on his recent trip to Germany and of the progress of AMSAT-Deutschland group on Phase III. The design and debugging of the "Integrated House-keeping Unit" including microprocessor are progressing well. Transponder power levels and approaches have been defined.

There was a discussion of the AMSAT position on frequency requirements in preparation for the 1979 WARC. The priority order is approximately as follows:

1) At least maintain present amateur satellite bands.

2) Increase hold on the 435-438 MHz band from "permitted" to a recognized allocation.

3) Obtain a new allocation in the 2300 MHz band (2300-2310 MHz).

4) Obtain a new allocation in the 3400 MHz bnad (3400-3410 MHz).

Capt. Dorian, who heads U.S. amateur preparation at UHF and above, suggested that further consideration be given, since he does not yet require final positions.

The President was directed to notify HA5BME concerning the U.S. Federal Communications Commission considerations in connection with his OSCAR "broadcast" experiments.

The Board voted OSCAR awards to Bill Hook, W3QBC, in and Ted Vogel, HB90P, for his services in publicizing the AMSAT OSCAR Program in Switzerland. The Board entered closed session at 2315 to settle 1975-76 employment arrangements with the President, K3JTE.

Robert J. Carpenter, W3OTC

AMSAT-OSCAR REFERENCE ORBITS AND OPERATING SCHEDULE

AMSAT-OSCAR 6

Period = 114.9946076 Minutes

Increment = 28.7486519 deg/orbit

Inclination = 101.6015 degrees

Operating Schedule

2/10 ON (GMT Days)
ASCENDING NODES
  Monday, Thursday, Saturday
DESCENDING NODES
  Sunday (EVEN DAYS, Educational demonstrations only)

AMSAT-OSCAR 7

Period = 114.944834 Minutes

Increment = 28.736208 deg/orbit

Inclination = 101.7010 degrees

Operating Schedule

EVEN DAYS of year Mode B
ODD DAYS of year Mode A
WEDNESDAYS (Experiment and Bulletin use only. General communications not permitted. Days designated below by "X".)

AMSAT-OSCAR 6

ORBIT	DATE	TIME(Z)	LONG W
14468	15 DEC	0130.63	75.54
14480	16 DEC	0030.56	60.52
14493	17 DEC	0125.49	74.25
14505	18 DEC	0025.42	59.24
14518	19 DEC	0120.35	72.97
14530	20 DEC	0020.28	57.95
14543	21 DEC	0115.21	71.69
14555	22 DEC	0015.14	56.67
14568	23 DEC	0110.07	70.40
14580	24 DEC	0010.00	55.39
14593	25 DEC	0104.93	69.12
14605	26 DEC	0004.87	54.10
14618	27 DEC	0059.79	67.84
14631	28 DEC	0154.72	81.57
14643	29 DEC	0054.66	66.55
14656	30 DEC	0149.58	80.28
14668	31 DEC	0049.52	65.27
14681	1 JAN	0144.45	79.00
14693	2 JAN	0044.38	63.98
14706	3 JAN	0139.31	77.72
14718	4 JAN	0039.24	62.70
14731	5 JAN	0134.17	76.43
14743	6 JAN	0034.10	61.42
14756	7 JAN	0129.03	75.15
14768	8 JAN	0028.96	60.13
14781	9 JAN	0123.89	73.87
14793	10 JAN	0023.82	58.85
14806	11 JAN	0118.75	72.58
14818	12 JAN	0018.69	57.57
14831	13 JAN	0113.61	71.30
14843	14 JAN	0013.55	56.28
14856	15 JAN	0108.48	70.01
14868	16 JAN	0008.41	55.00
14881	17 JAN	0103.34	68.73
14893	18 JAN	0003.27	53.71
14906	19 JAN	0058.20	67.45
14919	20 JAN	0153.13	81.18
14931	21 JAN	0053.06	66.16
14944	22 JAN	0147.99	79.90
14956	23 JAN	0047.92	64.88
14969	24 JAN	0142.85	78.61
14981	25 JAN	0042.78	63.60
14994	26 JAN	0137.71	77.33
15006	27 JAN	0037.65	62.31
15019	28 JAN	0132.57	76.05
15031	29 JAN	0032.51	61.03
15044	30 JAN	0127.43	74.76
15056	31 JAN	0027.37	59.75
15069	1 FEB	0122.30	73.48
15081	2 FEB	0022.23	58.46

AMSAT-OSCAR 7

ORBIT	DATE	TIME(Z)	LONG W
4940A	15 DEC	0008.56	51.95
4953B	16 DEC	0102.84	65.52
4965X	17 DEC	0002.18	50.36
4978B	18 DEC	0056.46	63.93
4991A	19 DEC	0150.74	77.50
5003B	20 DEC	0050.08	62.33
5016A	21 DEC	0144.36	75.90
5028B	22 DEC	0043.70	60.74
5041A	23 DEC	0137.99	74.31
5053X	24 DEC	0037.32	59.14
5066A	25 DEC	0131.61	72.71
5078B	26 DEC	0030.94	57.55
5091A	27 DEC	0125.23	71.12
5103B	28 DEC	0024.57	55.95
5116A	29 DEC	0118.85	69.52
5128B	30 DEC	0018.19	54.36
5141X	31 DEC	0112.47	67.93
5153A	1 JAN	0011.81	52.76
5166B	2 JAN	0106.09	66.33
5178A	3 JAN	0005.43	51.17
5191B	4 JAN	0059.71	64.74
5204A	5 JAN	0153.99	78.31
5216B	6 JAN	0053.33	63.14
5229X	7 JAN	0147.61	76.72
5241B	8 JAN	0046.95	61.55
5254A	9 JAN	0141.24	75.12
5266B	10 JAN	0040.57	59.96
5279A	11 JAN	0134.86	73.53
5291B	12 JAN	0034.19	58.36
5304A	13 JAN	0128.48	71.93
5316X	14 JAN	0027.82	56.77
5329A	15 JAN	0122.10	70.34
5341B	16 JAN	0021.44	55.17
5354A	17 JAN	0115.72	68.74
5366B	18 JAN	0015.06	53.58
5379A	19 JAN	0109.34	67.15
5391B	20 JAN	0008.68	51.98
5404X	21 JAN	0102.96	65.55
5416B	22 JAN	0002.30	50.39
5429A	23 JAN	0056.58	63.96
5442B	24 JAN	0150.86	77.53
5454A	25 JAN	0050.20	62.36
5467B	26 JAN	0144.49	75.93
5479A	27 JAN	0043.82	60.77
5492X	28 JAN	0138.11	74.34
5504A	29 JAN	0037.44	59.17
5517B	30 JAN	0131.73	72.74
5529A	31 JAN	0031.06	57.58
5542B	1 FEB	0125.35	71.15
5554A	2 FEB	0024.69	55.98

RETURN ADDRESS

PLACE
STAMP
HERE

AMSAT

Radio Amateur Satellite Corporation
P.O. BOX 27, WASHINGTON, D.C. 20044
U. S. A.

SPACECRAFT TRANSPONDER FREQUENCIES

SPACECRAFT	UPLINK	DOWNLINK	BEACON
A-O-6	145.90 - 146.00 MHz	29.45 - 29.55 MHz	29.45 MHz
A-O-7			
(Mode A)	145.85 - 145.95 MHz	29.40 - 29.50 MHz	29.502 MHz
(Mode B/C)	432.125 - 432.175 MHz	145.975 - 145.925 MHz	145.972 MHz
(Mode A/D)	-	-	435.10 MHz

REF

AMSAT-OSCAR 6				AMSAT-OSCAR 7			
ORBIT	DATE	TIME(Z)	LONG W	ORBIT	DATE	TIME(Z)	LONG W
15094	3 FEB	0117.16	72.19	5567B	3 FEB	0118.97	69.55
15106	4 FEB	0017.09	57.18	5579X	4 FEB	0018.31	54.39
15119	5 FEB	0112.02	70.91	5592B	5 FEB	0112.59	67.96
15131	6 FEB	0011.95	55.89	5604A	6 FEB	0011.93	52.79
15144	7 FEB	0106.88	69.63	5617B	7 FEB	0106.21	66.36
15156	8 FEB	0006.81	54.61	5629A	8 FEB	0005.55	51.20
15169	9 FEB	0101.74	68.34	5642B	9 FEB	0059.83	64.77
15181	10 FEB	0001.68	53.33	5655A	10 FEB	0154.11	78.34
15194	11 FEB	0056.60	67.06	5667X	11 FEB	0053.45	63.17
15207	12 FEB	0151.53	80.79	5680A	12 FEB	0147.73	76.75
15219	13 FEB	0051.47	65.78	5692B	13 FEB	0047.07	61.58
15232	14 FEB	0146.39	79.51	5705A	14 FEB	0141.36	75.15
15244	15 FEB	0046.33	64.49	5717B	15 FEB	0040.69	59.99
15257	16 FEB	0141.25	78.22	5730A	16 FEB	0134.98	73.56
15269	17 FEB	0041.19	63.21	5742B	17 FEB	0034.31	58.39
15282	18 FEB	0136.12	76.94	5755X	18 FEB	0128.60	71.96
15294	19 FEB	0036.05	61.92	5767B	19 FEB	0027.94	56.80
15307	20 FEB	0130.98	75.66	5780A	20 FEB	0122.22	70.37
15319	21 FEB	0030.91	60.64	5792B	21 FEB	0021.56	55.20
15332	22 FEB	0125.84	74.37	5805A	22 FEB	0115.84	68.77
15344	23 FEB	0025.77	59.36	5817B	23 FEB	0015.18	53.61
15357	24 FEB	0120.70	73.09	5830A	24 FEB	0109.46	67.18
15369	25 FEB	0020.63	58.07	5842X	25 FEB	0008.80	52.01
15382	26 FEB	0115.56	71.81	5855A	26 FEB	0103.08	65.58
15394	27 FEB	0015.50	56.79	5867B	27 FEB	0002.42	50.42
15407	28 FEB	0110.42	70.52	5880A	28 FEB	0056.70	63.99
15419	29 FEB	0010.36	55.51	5893B	29 FEB	0150.98	77.56
15432	1 MAR	0105.29	69.24	5905A	1 MAR	0050.32	62.39
15444	2 MAR	0005.22	54.22	5918B	2 MAR	0144.61	75.96
15457	3 MAR	0100.15	67.95	5930X	3 MAR	0043.94	60.80
15469	4 MAR	0000.08	52.94	5943B	4 MAR	0138.23	74.37
15482	5 MAR	0055.01	66.67	5955A	5 MAR	0037.56	59.20
15495	6 MAR	0149.94	80.40	5968B	6 MAR	0131.85	72.77
15507	7 MAR	0049.87	65.39	5980A	7 MAR	0031.18	57.61
15520	8 MAR	0144.80	79.12	5993B	8 MAR	0125.47	71.18
15532	9 MAR	0044.73	64.10	6005A	9 MAR	0024.81	56.01
15545	10 MAR	0139.66	77.84	6018X	10 MAR	0119.09	69.58
15557	11 MAR	0039.59	62.82	6030A	11 MAR	0018.43	54.42
15570	12 MAR	0134.52	76.55	6043B	12 MAR	0112.71	67.99
15582	13 MAR	0034.45	61.54	6055A	13 MAR	0012.05	52.82
15595	14 MAR	0129.38	75.27	6068B	14 MAR	0106.33	66.39
15607	15 MAR	0029.32	60.25	6080A	15 MAR	0005.67	51.23
15620	16 MAR	0124.24	73.98	6093B	16 MAR	0059.95	64.80
15632	17 MAR	0024.18	58.97	6106X	17 MAR	0154.23	78.37
15645	18 MAR	0119.11	72.70	6118B	18 MAR	0053.57	63.20
15657	19 MAR	0019.04	57.68	6131A	19 MAR	0147.85	76.78
15670	20 MAR	0113.97	71.42	6143B	20 MAR	0047.19	61.61
15682	21 MAR	0013.90	56.40	6156A	21 MAR	0141.48	75.18
15695	22 MAR	0108.83	70.13	6168B	22 MAR	0040.81	60.01
15707	23 MAR	0008.76	55.12	6181A	23 MAR	0135.10	73.59
15720	24 MAR	0103.69	68.85	6193X	24 MAR	0034.43	58.42
15732	25 MAR	0003.62	53.83	6206A	25 MAR	0128.72	71.99
15745	26 MAR	0058.55	67.57	6218B	26 MAR	0028.06	56.83
15758	27 MAR	0153.48	81.30	6231A	27 MAR	0122.34	70.40
15770	28 MAR	0053.41	66.28	6243B	28 MAR	0021.68	55.23
15783	29 MAR	0148.34	80.02	6256A	29 MAR	0115.96	68.80
15795	30 MAR	0048.27	65.00	6268B	30 MAR	0015.30	53.64

MINUTES OF THE ANNUAL MEETING

14 SEPTEMBER 1975

The meeting was called to order by President Klein (K3JTE) at 11:05 AM, with 75 attendees present.

Larry Kayser, VE3QB/WA3ZIA, reported on the progress in automating the AMSAT-OSCAR Spacecraft Ground Control by incorporating Intel 8008 microprocessors into the Command Stations.

Tom Clark, WA3LND, reported on the progress of the Portable Communications Terminals for emergency and demonstration use. He showed the engineering prototype (which was much admired). He also reported on the activity in preparation for the WARC in 1979. An involved discussion followed on such difficulties as were present, and included comments on QRM to and from ATV stations in the 435 to 438 MHz band.

VE3QB then reported on the Replacement A-O 6/7 Program that is building the electronics modules for a follow on spacecraft in the event of a failure in an existing spacecraft prior to the launch of the Phase III unit. This program is to provide continuity for the Educational Program on 10 meters.

Jan King, W3GEY, reported the progress on the Phase III spacecraft.

He also commented on the Educational Program and suggested that as most demonstrations require the use of a 10m pre-amp, a two meter converter could be employed instead and advantage taken of the better downlink in Mode B.

The results of the election for directors were announced as follows:

Jan King, W3GEY	188	(re-elected)
Perry Klein, K3JTE	187	(re-elected)
Bill Tynan, W3KMV	142	(re-elected)
Chuck Dorian, W3JPT	125	(re-elected)
Dave Clingerman, W6OAL	96	(first alternate)
Will Webster, WB2TNC	78	(second alternate)
Peter Shavney, -WA3OVH	10	
Void Ballots	6	
Total Valid Votes Cast	826	

6 Ballots were void for the following reasons:

Club Vote	1
Non-paid up members's vote	4
No identification of sender	1
VOIDED TOTAL	6

(Continued on Page 24)

COLLAGE OF PHOTOS TAKEN AT THE ANNUAL MEETING BY W4ART

Reading from top left, and across the page,

W3GEY family: Ian King, W3GEY, Donna King; WB2DNN, K9PVW and G3ZCZ checking ballots, W3UN; W3GEY reporting on Phase III progress.

W8DX; WA3LND quoting ITU Regulations; K9PVW opening ballots; WA2NVG.

WA2INB; VE3QB reporting on Command Station activities; W3OTC and WB4DGU; WB2DNN; W3UN.

WB4UOX; W3GEY and W3KMV; K2UBC; W3HUC; K1HTV.

K2ZRO; WB2DNN and K9PVW checking ballots; WA3LND and VE3QB.

ORGANIZING AN AMSAT DISPLAY AT A HAMFEST

BY JOE KASSER G3ZCZ

AMSAT and the OSCAR program can receive a lot of favourable publicity if demonstrations are set up at local Hamfests, and you as a member can organize and put on a successful display with a minimum amount of effort.

Firstly, get together a group of at least four people. Let one person out of the group be responsible for selling surplus equipment (junk?) belonging to the others. Schedule the remaining people to man the booth so that at any one time, one person is always free to roam around and purchase needed items for himself or from a shopping list.

Write to your local area coordinator, well in advance, telling him about the Hamfest and that you plan a demonstration and ask for supplies.

For a week or so beforehand tape record signals off the air, mix SSB and CW but put more SSB than CW on the tape. Try and get DX-calls and accents on the tape. A portable cassette recorder is all that you need for this purpose, but be sure that the quality is good.

Make up posters. If you write to AMSAT, c/o Dept. of Publicity and Information, you can obtain black and white and possibly color photographs (depending on what is available at the time) to help make up posters. Posters can contain anything, from simple slogans such as "OSCAR 7 Downlink 145.9 to 29.5 MHz" to complex involved technical details of the spacecraft. It is preferable to keep most of them very simple and easy to read. Poster boards and felt tip pens are available in many places and you don't need to be an art student to make a readable poster. The posters just need to be readable, they don't need to be works of art.

Colour slides are available from K6PGX as advertized. If you can build or borrow some sort of daylight display device for them, please do. Playing a tape and showing the slides will attract people.

If you have a working demonstration station, keep it simple. At a Hamfest, use converted FM equipment for both Modes A and B. Use 10 watts output to a beam on Mode B, and 100 watts output to a dipole/ground plane on Mode A (and OSCAR 6). Alternatively use a regular rig and a transverter. Keep the equipment simple and familiar so that the average ham can see that it is easy to put a signal into the spacecraft.

Call into the regular AMSAT-NETS a week or so in advance and arrange schedules for passes during your demonstration period. Ask for SSB contacts even though you may be using CW and have the demonstration station explain about the spacecraft over the air. For thousands of years humanity has been listening to disembodied voices.

Have a display of QSL cards. Bring yours along, and show off your DX contacts. Play the tape whenever you are not on the air; noises attract people.

Beware of QRM on the Mode B downlink from 2 meter FM walky-talkies. If it is bad, close down the station, or concentrate on Mode A only. Do not try to impress people with marginal signals.

Keep the antennas simple. Dipoles and pre-amps should be used in preference to high gain beams that require rotation. There will be sufficient happening so that you will be busy enough without needing to point the antenna. If you put on more than one demonstration, you will gain experience in the techniques to use and can introduce various degrees of sophistication and complexity, but initially keep it simple. Answer questions, and take names and addresses so that you can pass on requests for information to your local area coordinator.

Take pictures of your exhibit and of local officers at your exhibit and submit them to ham magazines. Write a few lines about your activities and submit them also. You might even try to place a photo-story in your local paper "Local Hams Communicate via Satellite" is usually a good headline.

Finally send in a report to AMSAT describing what you did and how. The information will be of use to the next guy. Most important of all, return all borrowed materials to their owners.

You can put on an AMSAT-OSCAR publicity booth at your next Hamfest, and it can be fun. Try it, you'll like it.

OSCAR MEDICAL DATA TESTS

BY BILL HOOK, W3QBC

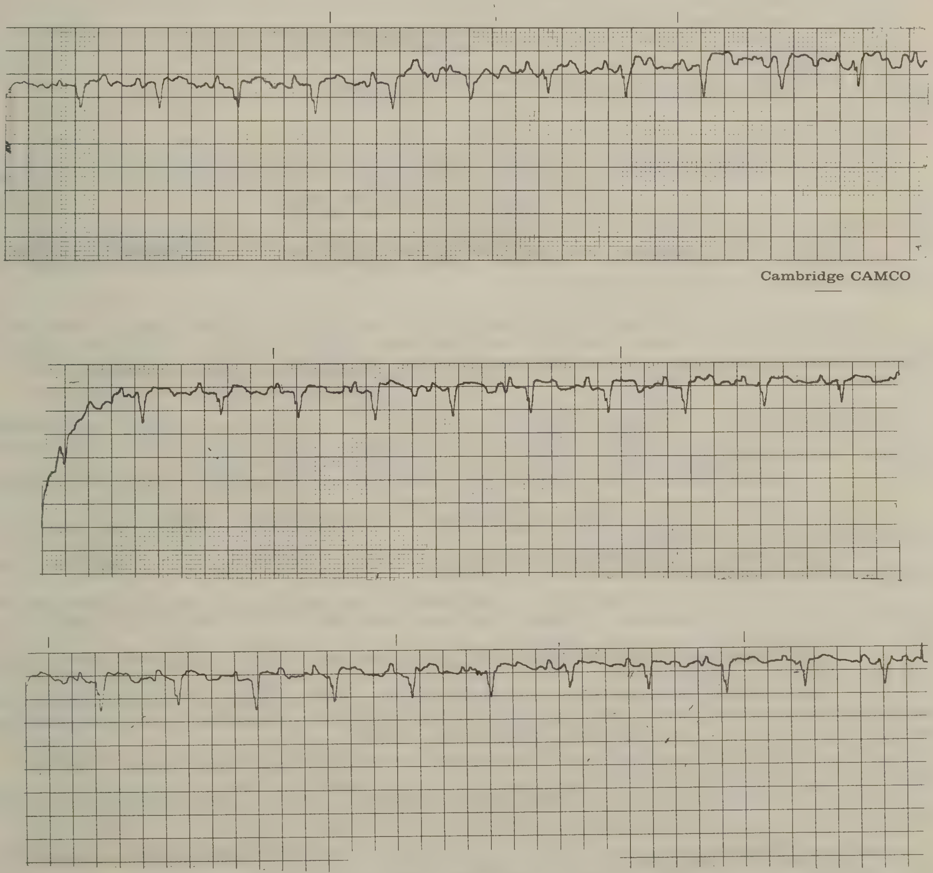
On October 22, 1975, W6ELT, Santa Ana, California, transmitted electrocardiogram (ECG) signals via OSCARS 6 and7. The signals were received in Bethesda, Maryland, by the National Institutes of Health Club Station, K3YGG, and by Ed Clammer, W3UN. After each OSCAR pass, W3UN used 2 meter FM to relay signals that he had tape recorded to K3YGG for display on an ECG paper strip recorder. These were compared with signals that K3YGG received directly from the satellites.

W6ELT used SSB transmissions for the 1000 Hz carrier that is frequency modulated with ECG information.

Both receiving stations used an FM demodulator circuit designed by AMSAT member Dave Nelson, K7RGE, of Tucson, Arizona. His demodulator has a bandwidth of 100 Hz and permitted reception of the 1000 Hz tone. Doppler shift was compensated for without the need of an additional reference signal by use of a discriminator meter and constant retuning of the 10 meter receiver to center frequency.

The received pattern was an acceptable ECG pattern closely resembling the original waveform. Additional tests are planned using the OSCAR 7 Mode B 2 meter downlink and will include a transmission from a mobile station.

(Editorial Note: Transmission of ECG DAta was first proposed by A. Vilenksy, 4X4MH, in the September, 1973, AMSAT Newsletter.)



TYPICAL MONITOR STRIPS

AMSAT-OSCAR 7 SLIDE COLLECTIONS

Slide collections covering the construction, test and launch of AMSAT-OSCAR 7 are now available. These sets of 21 slides, complete with detailed slide descriptions, may be ordered for $5.40 postpaid (or 28 IRC's) from Norman Chalfin, K6PGX, P. O. Box 463, Pasadena, Calif. 91102. Make payments payable to Norman Chalfin. All excess procees over costs will go to AMSAT. (overseas airmail price $7.48 or 40 IRC's)

AMSAT-OSCAR 7 Slide Titles:

1. WA4DGU constructing the two-to-ten meter transponder.
2. Two-to-ten meter transponder before encapsulation.
3. 70cm-to-2m transponder receiver.
4. 70cm-to-2m transponder transmitter.
5. 70cm-to-2m transponder modulator.
6. Command decoder.
7. Wiring harness.
8. Spacecraft interior.
9. Spacecraft with solar panels in place.
10. 435.1 MHz beacon transmitter.
11. Morse code telemetry encoder.
12. Experiment control logic.
13. Battery charge regulator.
14. Nickel-cadmium battery.
15. Hybrid/diplexer module.
16. K3JTE, K6GSJ, W5CAY, DJ4ZC, K6HIJ, VK3ZPI and W3GEY at Experimenters Meeting.
17. Vibration test.
18. Installation in the Delta launch vehicle.
19. Spacecraft after installation in launch vehicle.
20. Launch!
21. Figure "7" drawn in the sky following launch.

OSCAR SATELLITE COMMUNICATIONS ACHIEVEMENT RECOGNITION

NEW SATELLITE OPERATING AWARD

AMSAT is now handing out "OSCARs." AMSAT announces a new operating award for satellite users, details as follows:

PURPOSE -- The purpose of the award is to stimulate and maintain a continuing interest in satellite communications by providing recognition of continuing QSO accomplishments, AND to provide for recognition by AMSAT of special efforts and services by all radio amateurs.

AVAILABILITY -- The basic award is available for confirmed satellite contacts with either (1) 20 U.S. states, Canadian call areas, other countries, or a mixture thereof, or (2) six Australian call areas and two countries, or
(3) any other requirements as specified by the AMSAT Board of Directors.

NOTES -- (1) All contacts made via any OSCAR spacecraft using any legal transmission mode are valid.

(2) QSL cards or other written confirmation of contacts must show that the QSO was via a satellite.

(3) In lieu of such QSL cards, applicants may submit a list of contacts confirmed by the awards manager of their national amateur radio society or AMSAT affiliate organization.

(4) All contacts must be made from the same QTH (within an area of 25 miles from a particular location).

(5) Sufficient postage must be supplied for the return of the QSL cards sent. The award is free to AMSAT members, and is available to nonmembers for the nominal fee of $1.00. Please include your membership number.

(6) Endorsements are now available for each ten (10) additional areas as defined in section (1) above.

(7) Send applications to AMSAT-Award Program, Box 27, Washington, D.C. 20044, U.S.A.

We are pleased to announce that Earl Skelton, WA3THD, has agreed to serve as Award Manager in administering the "OSCAR" Award.

AMSAT "OSCAR" AWARD STATUS

Recipient

1. WA3THD
2. VE3BNO
3. WA1EHF
4. WA2CVV
5. W4GCB
6. K7VNU
7. W5SLL/0
8. WA7GCS
9. K3JTE
10. WA4LBO
11. W4WSF
12. W5UCY
13. OA8V
14. W3GF
15. WA1SCV
16. W6CG
17. WB0IUT
18. WA6JFP
19. W7MKW
20. DK4QE
21. WB5DCY
22. W9JUV
23. WB2TNC
24. WB2TNC/3
25. DJ2RE
26. W3TFA
27. K3AKR
28. K5DZE/5
29. K3MWV

The following overseas stations have been appointed OSCAR Award Managers for their respective countries:

Gerard Francon (F6BEG) 17 rue du Chauffour, 15130 Arpajon-sur-Cere, FRANCE

John Harvey (G8KLO) 22 Elm Grove, Broms Grove, B-61 03H ENGLAND

Colin Hurst (VK5HI) 8 Arndell Road, Salisbury Park, South Australia,
5109, AUSTRALIA

Karl-Heinz Clause (DC9DX) 10 Alfred-Delp STR, 3140 Luneburg, W. GERMANY

Applicants are requested to submit their cards to the local Award Manager where applicable; applications from North and South America, as well as those from all countries without a local Manager, may be processed through AMSAT-Award Manager, P. O. Box 27, Washington, D. C. 20044, U.S.A.

The AMSAT Board of Directors have voted OSCARS to the following in recognition of services rendered.

For OSCAR Command and Control:

Randal Smith, VE2BYG
Dave Clingerman, W6OAL
Gary Gompf, CN8BO

For Relaying OSCAR Bulletins:

Vic Politi, W1NU
Anthony Chipaloski, WB2VKZ
Jack Colson, W3TMZ
Stewart Haag, W4MOP
Bud Schultz, W6CG
Lloyd Rasmussen, K0DDA
Karl Klein, W6DOW
Richard Zwirko, K1HTV
Fred Merry, W2GN
Dick Long, WA4JID
John Hopkins, ARC, WA3EPT
Edward Lips, W3BWU
William Hunter, K4TI
George Dillon, W6ELT
Walter Dixon, W4DWN
Hayden Evans, K2BZT

For Telemetry and Tracking

John Fox, W0LER
Ron Dunbar, W0MJS

For Overseas Publicity:

Roy Stevens, G2BVN
A. L. Bailey, G3WPO
Bruce Rowlings, ZL1WB
Haruo Yonenda, JA1ANG
Piero Moroni, I5TDJ
A. G. Schwindt, HA5WH
Ted Vogel, HB9OP
Pat Gowen, G3IOR
William Browning, G2AOX
Dave Hull, VK3ZDH
V. Subramanian, VU2UV
Torsti Paatero, OH2RK
David Liberman, XE1TU

For Services as AMSAT Treasurer:

Bill Hook, W3QBC

(Continued from Page 26)

Joe Kasser, G3ZCZ, then reported on the new "OSCAR" award and on the Newsletter.

President Klein announced the retirement of Chuck Dorian from the Secretary's post held for six years and of Bill Hook (W3QBC) from the Treasurer's position held for nearly four years. Bill Hook volunteered to stay on as Assistant Treasurer to ensure a smooth transition.

The following items came under the Other Business Agenda item.

- Bill Tynan, W3KMV, editor of "The World Above" column in QST, asked satellite users to remember that people also had receivers and to use VHF for direct contacts as well as via satellite.
- Richard Zwirko, K1HTV, publicized the AMSAT-OSCAR QSL Bureau and announced its new QTH.
- Chuck Dorian, W3JPT, solicited comments on amateur band frequencies for use in preparations for the WARC in 1979.
- President Klein, K3JTE, introduced a resolution of a vote of thanks to Chuck Dorian and Bill Hook for services rendered. He also thanked Roy Rosner, WB4UOX, for his efforts in preparing for the AMSAT dinner and buffet brunch during the Convention. The resolution was unanimously approved.
- Larry Kayser, VE3QB, invited visitors to Ottawa to stop by and see the Command Station. He requested that he be informed in advance, however, so as to be able to be present for the visit. (He has a busy schedule which may need rearranging.)
- Roy Rosner, WB4UOX, explained how to get to the AMSAT brunch taking place at the Holiday Inn at Dulles Airport.

The meeting was closed at 1:10 PM.

AMSAT NEWS

The FCC has authorised radio amateurs in the USA equipped for RTTY to transmit ASCII coded signals through the AMSAT-OSCAR spacecraft for experimental purposes. AMSAT is interested in receiving proposals for, and carrying out experiments in transmittimg computer data via satellite.

AMSAT-OSCAR 6 celebrated its third birthday on October 15th and AMSAT-OSCAR 7 its first birthday on November 15th. QSL cards are still available from AMSAT for reception reports of the special relay transmissions from the satellites commemorating these anniversaries. The Jet Propulsion Laboratories (Radio Club) at Passadena, California held an Oscar month from October 15th to November 15th with special exhibits depicting the two spacecraft.

A distance record for amateur satellite relay communications has been claimed by G3IOR and W6CG for a qso made over a ground distance of nearly 6000 miles. As this path is well out of direct line of sight range, the contact was made using meteor scatter techniques on successive evening orbits. The QSO took two weeks to complete.

W2GN has completed tests operating mobile in motion using ssb, via AMSAT-OSCAR 7 mode B with fantastic results. His signals were fully audible over most of the East Coast of the USA during the 15 minutes or so that the spacecraft was within his visibility range. These experiments have demonstrated the superior downlink capability of Mode B.

AMSAT TREASURER'S REPORT FOR THIRD QUARTER OF 1975

ASSETS:	June 31, 1975		$ 45,100.88
RECEIPTS:	Dues (Note 1)	$ 3,595.31	
	Donations (Note 2)	9,577.54	
	Interest	541.43	
	Other Income	698.80	
	Total		$ 14,413.08
EXPENSES:	Postage	$ 779.31	
	Office Supplies & Services	440.30	
	Telephone	185.71	
	Printing	1,609.40	
	Photography	90.00	
	Typing	359.20	
	Travel	311.37	
	Command Station	6.36	
	Capital Equipment	1,150.49	
	Components	382.90	
	Salary and FICA (Note 3)	6,781.24	
	Miscellaneous and Fees	176.85	
	Total		$ 12,273.13
EXCESS OF INCOME OVER EXPENSES:			$ 2,139.95
ASSETS:	September 30, 1975		
	General Checking Account	$ 4,582.01	
	Payroll Checking Account	2,850.29	
	General Savings Account	27,326.42	
	Payroll Savings Account	7,293.96	
	Liquid Assets Fund	5,188.15	
	Total Cash Assets		$ 47,240.83

Note 1: Dues received from: Individuals, $3,410.31; Family Memberships, $5.00; and Member Societies, $180.00.

Note 2: Donations included: $9,290.04 from individuals and societies applying for life membership; and $287.50 from others.

Note 3: Salary and FICA for Engineer Dr. Perry I. Klein.

EXTENT AND NATURE OF CIRCULATION	AVERAGE NO. COPIES EACH ISSUE DURING PRECEDING 12 MONTHS	ACTUAL NUMBER OF COPIES OF SINGLE ISSUE PUBLISHED NEAREST TO FILING DATE
A. TOTAL NO. COPIES PRINTED *(Net Press Run)*	3,500	4,000
B. PAID CIRCULATION 1. SALES THROUGH DEALERS AND CARRIERS, STREET VENDORS AND COUNTER SALES		
2. MAIL SUBSCRIPTIONS	2,000	2,443
C. TOTAL PAID CIRCULATION	2,000	2,443
D. FREE DISTRIBUTION BY MAIL, CARRIER OR OTHER MEANS SAMPLES, COMPLIMENTARY, AND OTHER FREE COPIES	62	62
E. TOTAL DISTRIBUTION *(Sum of C and D)*	2,062	2,505
F. COPIES NOT DISTRIBUTED 1. OFFICE USE, LEFT OVER, UNACCOUNTED, SPOILED AFTER PRINTING to new members via 3rd class	1,438	1,495
2. RETURNS FROM NEWS AGENTS		
G. TOTAL *(Sum of E & F—should equal net press run shown in A)*	3,500	4,000
I certify that the statements made by me above are correct and complete. ▶	SIGNATURE OF EDITOR, PUBLISHER, BUSINESS MANAGER, OR OWNER Perry I. Klein, President	

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F9FT Report	5 March 1973
Notice to All Users of OSCAR 6	6 March 1973
Range Measuring with OSCAR 6 Using SSTV	9 March 1973
Preliminary Observations on OSCAR 6 Inverted Doppler	10 June 1973
OSCAR 6 Orbits	16 Sept 1973
Special Announcement Renaming OSCAR 6	20 Sept 1973
One Year in Orbit	4 Dec 1973
AMSAT-OSCAR-6 Visual Observation Report	24 Dec 1973
AMSAT-OSCAR-6 Operating Schedule	24 Dec 1973
AMSAT-OSCAR Information Retrieval Check Sheet	Dec 1973
AMSAT-OSCAR-6 Orbital Prediction Book	3 March 1974
AMSAT-OSCAR-6 Orbits and Operating Schedule	36 June 1974
AMSAT-OSCAR-6 Satellite Pin	11 Sept 1974
AMSAT-OSCAR-6 Reference Orbits	36 Sept 1974
AMSAT-OSCAR-6 Determination of Tumble Rate	11 June 1975
Perpetual Computer Printout for OSCAR 6 and 7	14 Sept 1975

OSCAR 7:

Call for Experiments for AMSAT-OSCAR-B	14 March 1970
AMSAT-OSCAR-B Specification and Call for Experiments	29 June 1970
NASA Approval of A-O-B Launch	3 March 1971
Progress Report on AMSAT-OSCAR B	13 June 1971
Frequency Selection for OSCAR 7	19 March 1973
Summary of AMSAT-OSCAR B Spacecraft	9 Dec 1973

OSCAR 7 (continued):

AMSAT-OSCAR 7 and its Capabilities	12 Dec 1973
A-O-B Status Report	4 March 1974
Licensing for AMSAT-OSCAR 7	4 June 1974
AMSAT-OSCAR 7 Band Plan	7 Sept 1974
AMSAT-OSCAR 7 Launch Plan	7 Sept 1974
AMSAT-OSCAR 7 Technical Operations Plan	14 Sept 1974
AMSAT-OSCAR 7 Launched	3 Dec 1974
AMSAT-OSCAR 7 Final Telemetry Parameters and Equations	4 Dec 1974
Reading the AMSAT-OSCAR-7 Morse Telemetry	13 Dec 1974
Table of Antenna Polarizations for A-O-7	14 Dec 1974
A-O-7 2/10 Transponder Band Plan	15 Dec 1974
A-O-7 Reference Orbits	12 March 1975
Cover Story -- 2304 MHz Antenna for A-O-7	24 March 1975
Optical Tracking of AMSAT-OSCAR 7	14 June 1975
Experiment Day Activities	15 June 1975
Perpetual Computer Printout for OSCAR 6 and 7	14 Sept 1975
SSB on Mode B, Using Modified FM Equipment	10 Dec 1975

Phase III:

SYNCART	7 June 1971
International AMSAT-OSCAR Experimenters Conference	4 June 1975
AMSAT Phase III Progress Report	6 Sept 1975

Operating and Awards:

OSCAR Aircraft Competition Results	15 June 1971
Flight Tests of the Two-to-Ten Repeater	18 June 1971
Operations	14 Sept 1972
Operations	22 Dec 1972
Operations	16 March 1973
Satellite Operating Awards	8 June 1973
OSCAR 6 Operating Schedule	8 June 1973
AMSAT-OSCAR-6 Users List Summary	5 Dec 1973
AMSAT-OSCAR-6 Operations	10 March 1974
OSCAR Nostalgia	15 March 1974
Hawaiian Satellite Communications Award	17 March 1974
Ten American District Award	17 June 1974
Washington Satellite Award	22 June 1974
For the Record	3 March 1975
WA4JID Maritime Mobile Report	9 June 1975
OSCAR -- Award	22 June 1975
Washington Satellite Award	23 June 1975
San Marino Dx pedition	30 June 1975
Dxpedition to South Carolina	5 Sept 1975
Summary of OSCAR Activity	8 Sept 1975
OSCAR 7B Mobile Experiment	10 Sept 1975
OSCAR Award	11 Sept 1975
QSL Bureau Users' List	21 Sept 1975
North Jersey Dx Association Award	13 Dec 1975
AMSAT "OSCAR" Award Status	23 Dec 1975

Education:

A Workshop on Amateur Satellites	16 Sept 1971
OSCAR Educational Program	8 Sept 1973
OSCAR Curriculum Book	24 March 1974
Organising an AMSAT Display at a Hamfest	20 Dec 1975

ASSC:

Report of the Amateur Satellite Service Com.	20 Sept 1972
Minutes of the Amateur Satellite Service Committee	14 March 1973
Amateur Satellite Service Committee Meeting	6 Sept 1973
Minutes of Amateur Satellite Service Committee	6 Dec 1973

ASSC (continued):

Minutes of the Amateur Satellite Service Committee	18 Dec 1973
Charter of the Amateur Satellite Service Committee	19 Dec 1973
Minutes of the Amateur Satellite Service Council	5 June 1974

Life Member Listings:

New AMSAT Life Members	9 March 1974
New AMSAT Life Members	24 June 1974
New AMSAT Life Members	13 Sept 1974
New AMSAT Life Members	33 Dec 1974
Recent AMSAT Life Members	23 March 1975
New AMSAT Life Members	31 June 1975
New AMSAT Life Members	23 Sept 1975
New AMSAT Life Members	30 Dec 1975

MEMBERSHIP RENEWAL NOTICE

AMSAT now has end-of-year billing for renewals. All memberships expire at the end of a calendar year. This simpler procedure is followed by many societies like AMSAT whose membership records are kept by a volunteer staff.

A renewal envelope is included in all copies of this issue of the Newsletter and may be used for renewal of your membership, to make a contribution, to order Orbit Calendars, or to use when applying for a New or Life Membership. Please check your mailing label for accuracy and use the remittance envelope to inform us of any changes.

Expiration Date (Month, Year)	Coding (See form below)	Member No.
12-75	ACEGH	123

A - Hold an amateur license.
B - Do not hold a license.
C - Member of the ARRL.
D - Non-member of ARRL.
E - Will participate actively in AMSAT activities.
F - Do not desire to actively participate.
G - Capabilities lie in technical areas.
H - Capabilities lie in administrative areas.

Life member coding is done as above with the LM number in place of the expiration date. A previous regular member number may appear in the right hand column.

AMSAT GRATEFULLY ACKNOWLEDGES DONATIONS OF $100.00 OR MORE FROM THE FOLLOWING NEW LIFE MEMBERS

LM-499	Robert A. Skipper, WA3VUW	LM-504	Robert E. Clark, W0QIN
LM-500	Reginald F. White, W5SSB	LM-505	John N. Boland, W4CC
LM-501	Carlo Venturello, HK5MO	LM-506	Francis C. South, W3AIR
LM-502	Peter Griebel, DJ9PC	LM-507	Ted W.G.Riemann, W0ULK
LM-503	Garth A. Hamilton, VE3EUP	LM-508	Jacques Planchamp, F5HV

AMSAT GRATEFULLY ACKNOWLEDGES DONATIONS FROM THE FOLLOWING NEW LIFE MEMBER SOCIETIES

LMS-20 AMSAT San Bernardino - Switzerland

THE INTERNATIONAL PAGE

Your department of Publicity and Information is proud to bring you a selection of reprints about AMSAT and OSCAR from overseas magazines.

amateur radio

JOURNAL OF THE WIRELESS INSTITUTE OF AUSTRALIA, FOUNDED 1910

JANUARY, 1975
VOL. 43, No. 1
Price, 70 cents
Registered at the G.P.O. Melbourne for transmission by Post as a Periodical— Category "B"

QSP

A quarterly newsletter about Canadian members and activities of AMSAT-CANADA. Contributions and comments welcome. Compiled by Ernie Welling, VE3HD.

OSCAR 7 LAUNCHED

David Hull VK3ZDH
Project Australis

AMSAT
DEUTSCHLAND e.V.

INFORMATIONEN

FÜR UNSERE MITGLIEDER

DOPPLER INVERTITO

UN'ANOMALIA RILEVATA PER LA PRIMA VOLTA DAL BEACON DI OSCAR 6

La scoperta del fenomeno definito Döppler invertito è "l'esempio di una di quelle straordinarie combinazioni per le quali si trova una cosa mentre se ne cervava un'altra. Per tale genere di scoperte Horace Walpole coniò una parola che non ha corrispondente nella lingua italiana e che è dififcile trovare anche nel vocabolario inglese: *serendipity*. Questa parola trae la sua origine da un racconto

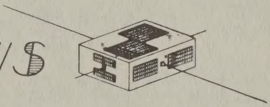
AMSAT

Räkneskivan för OSCAR 6 och 7

För att ytterligare förenkla banberäkningarna med hjälp av SM7EY utmärkta räkneskiva, beskriven i QTC kan man tillfoga en vridbar tidsskiva längs skivans ytterkant. Den förenklar framräkningen av olika passagetider vid de tillfällen då man känner till endast en passagetid under dygnet. Tidsskalan indelas i 24 timmar och dessutom bör man markera halvtimmar och tio minuter. Tidsskalan kopieras lämpligen på genomskinligt material och lagras i mitten med samma stift som för cirkelplanet med satellitbanan.

SM7VY

Stichting
AMSAT NIEUWS
NEDERLAND



Referentie-omlopen AMSAT-OSCAR-6

Verzoek

BOLLETTINO DI PREVISIONI PER L'OSCAR 6 E L'OSCAR 7
DAL COORDINATORE A.M.S.A.T. ITALIANO
I 3 BMV – Casella Postale 372 – I - 34100 TRIESTE

PHOTOS OF AMSAT-OSCAR 7

Eight by ten-inch full-color photographs of AMSAT-OSCAR 7 (artist's conception in space with the Earth as a background) are now available for $3.00 U.S. (or 20 IRC's) postpaid from:

Alan L. Bridges, WB4VXP
VHF Communications South
2754 Pine Hill Drive
Kennesaw, Georgia 30144, U.S.A.

Please make your check or money order payable to AMSAT, who will receive the proceeds.

AMSAT MEMBERSHIP SURVEY

We would like to find out what you think of AMSAT and what you as a member would like to see in the AMSAT Newsletter. Please copy this page on 8 1/2 x 11 paper and complete the form. Feel free to utilize the rest of the sheet for original comments.

(1) Contents of the Newsletter; I'd like to see

	MORE	SAME	LESS	OTHER
Technical spacecraft data	____	____	____	____
Technical Ground Equipment data	____	____	____	____
Details of what people are doing	____	____	____	____
Minutes of Board meetings	____	____	____	____
Internal (AMSAT) politics	____	____	____	____
External (AMSAT v. REST) politics	____	____	____	____
Letters to the editor	____	____	____	____
Listings of coordinators/officers	____	____	____	____
Orbit listings	____	____	____	____
Dx-pedition reports	____	____	____	____
Education program	____	____	____	____
QSL bureau user listings	____	____	____	____
Winners of OSCAR Award	____	____	____	____
Listing of Life Members	____	____	____	____
Phase III spacecraft	____	____	____	____
Photographs	____	____	____	____
Net Listings	____	____	____	____

(2) Use the following equipment for my satellite contacts

10 meters. . . . . Ant. . . . .
2 meter uplink . . . . Ant. . . . .
2 meter downlink . . . . Ant. . . . .
432 MHz uplink . . . . Ant. . . . .
435 MHz beacon . . . . Ant. . . . .

(3) I think that the downlink signals of OSCAR 6, 7A and 7B could be rated in the following order 1 (best)________ 2________ 3 ________.

(4) I have the time to help out by doing some work for AMSAT yes______ no______
If yes, in what capacity does your talent lie.

(5) Date I received this newsletter ______________________________

Please return the completed questionnaire to AMSAT, in care of G3ZCZ.

AMSAT
P.O. Box 27
Washington, D.C. 20044

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